

Appl. No.: 10/082,450  
Amdt. dated April 28, 2009  
Reply to Office Action of January 26, 2009

## **REMARKS/ARGUMENTS**

With this Amendment, Applicant amends claims 2, 3, 5, and 6 and adds new claims 15-18. Support for the amendments to claims 2, 3, 5 and 6 may be found at least in pages 242 and 243 of the originally-filed specification. As such, no new matter is added. Claims 2, 3, 5, 6, 11-14 and 15-18 are all the claims currently pending in the application. Based on the foregoing amendments and the following remarks, Applicant respectfully requests reconsideration of the application and allowance of the claims.

### **I. Statement of the Substance of the Interview**

Applicant thanks Examiner Mered for participating in the telephone interview conducted on April 22, 2009. During the interview, the outstanding rejections under 35 U.S.C. § 103(a) were discussed. Applicant thanks the Examiner for indicating that if amendments were made to define the claimed “first bit” as a left most bit in the coding bits that such an amendment would overcome the § 103(a) rejection in view of Yang and Chen. Applicant herein amends claims 2, 3, 5 and 6 in a manner analogous to that proposed by the Examiner and as such respectfully requests the Examiner to withdraw the rejections.

### **II. Rejection of Claims 2, 3, 5 & 6 Under 35 U.S.C. § 103(a)**

Claims 2, 3, 5, 6 and 11-14 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Yang, et al., “A New Self-routing Multicast Network,” IEEE, December 1999, (hereinafter “Yang”), in view of Chen et al. (U.S. Patent No. 5,666,360; hereinafter “Chen”). As explained below, Applicant respectfully disagrees and traverses the rejection of claims 2, 3, 5 and 6 as being unpatentable over Yang, in view of Chen.

The combination of Yang and Chen does not teach or suggest a coding scheme that includes coding bits such that *a bit in a left-most bit position* of the code for the in-band control signal corresponding to a *0-bound packet type* is *different* from *a bit in a left-most bit position* of the code for the in-band control signal corresponding to a *1-bound packet type*, as recited by amended claim 2. In rejecting claim 2, the Examiner relies on the Yang as disclosing the claimed 0-bound packet type and the claimed 1-bound packet type. (See pg. 4 of the Office Action). In this regard, the Examiner alleges that tag 0 of Yang corresponds to the claimed 0-

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bound packet type, and alleges that tag 1 of Yang corresponds to the claimed 1-bound packet type.

In contrast to claim 2, table 1 on page 1306 of Yang at most discloses that Yang uses an encoding scheme in which tag 0 has a bit in the left-most bit position of “0” where the tag is “000” and tag 1 has a bit in a left-most bit position of “0” where the tag is “001.” Since the bit in the left-most bit position of each of tag 0 and tag 1 is “0,” the combination of Yang and Chen does not teach or suggest a coding scheme that includes coding bits such that a bit in a left-most bit position of the code for the in-band control signal corresponding to a 0-bound packet type is *different from* a bit in a left-most bit position of the code for the in-band control signal corresponding to a 1-bound packet type, as recited by claim 2.

Applicant notes that page 241 of the originally-filed specification describes the deficiencies associated with conventional coding schemes such as the encoding scheme of Yang. As shown in table 1 on page 241 of the specification, the in-band control signals associated with the 0-bound and 1-bound packet types both have bits in the left-most bit positions of “1” where the coding bits are “10” and “11” for the 0-bound and 1-bound packet types, respectively. As such, the deficiency of the conventional coding scheme is that the bicast cell “has to read both coding bits for the in-band control signal before it can determine the first bit on each of its two output ports.” (Specification pg. 242) “For instance, if the first input bit of the input packet on one input port is ‘0’ and the first input bit of the input packet on the other input port is ‘1’, the input packet starting with a ‘1’ can be either ‘0-bound’ or ‘1-bound’” since the left-most bit of the coding bits for 0-bound and 1-bound is “1.” (See table 1 and pgs. 241-242 of the specification) Since the left-most bit position is the same (e.g., “1”) for the 0-bound and 1-bound packet types corresponding to the conventional coding schemes “the switching element *must wait* for the *second bits* from each of the input packets before it can determine the first output bit on each of its two output ports” which results in a latency due to a “buffering delay.” (Specification pg. 242)

Applicant submits that the recitations of claim 2 “removes the deficiency” of the conventional coding scheme such that there is no buffering delay. (Specification pg. 242, lines 15-18) Page 243 of the specification describes that since the bits in the left-most bit position for the 0-bound and 1-bound packet types of the exemplary embodiments are different (e.g., “01” for

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0-bound and “11” for 1-bound) “upon receiving the first bit of each of the input packets, the switching element can determine the first bit for each of the two output packets.”<sup>1</sup> In this regard, the switching element is configured to output the first received bits to the output ports without waiting on the second output bit of the coding bits (See e.g., FIG. 79 of the application) which removes the buffering delay associated with the conventional coding scheme, such as the encoding scheme of Yang.

For at least the foregoing reasons, Applicant submits that the combination of Yang and Chen is deficient and does not teach or suggest all of the features of independent claim 2 and its dependent claim 11.

Since independent claims 3, 5 and 6 contain features that are analogous to, though not necessarily coextensive with, the features recited in independent claim 2, Applicant submits that independent claims 3, 5 and 6 and their respective dependent claims 12, 13 and 14 are patentable at least for reasons analogous to those submitted for claim 2.

### **III. New Claims**

Applicant herein adds new claims 15-18 to provide more varied protection of Applicant’s invention as described in the specification. In addition to their dependencies from independent claims 2, 3, 5 and 6, Applicants submit that claims 15-18 are independently patentable given that the cited references, alone or in combination do not teach or suggest the features of these claims. Support for new claims 15-18 may be found at least on page 244 at lines 9-15 of the originally filed specification.

### **IV. Conclusion**

In view of the amendments and the foregoing remarks, Applicants respectfully submit that all of the claims of the present application are in condition for allowance. It is respectfully requested that a Notice of Allowance be issued in due course. Examiner Mered is encouraged to

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<sup>1</sup> Applicant notes that the specification describes the left-most bit position of the coding bits of the exemplary embodiments are the first bits received at the input ports. For instance, pg. 244 of the specification describes that “I<sub>1</sub> = AB” and if “I<sub>1</sub> = 01” for example, “the two first input bits of the two input packets at input-0 and input-1 are ‘0’ and ‘1,’ respectively.”

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contact Applicants' undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

  
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